Street ketamine, which is based on the ketamine drug used medically as an anaesthetic agent, is increasingly used as a “recreational drug” by some young people in Hong Kong. There was no previous record of the harmful effects of the use of this drug on the bladder. However from 2000 to 2007, seven male and three female patients, aged 20 to 30 years, who had all used street ketamine in this way for 1 to 4 years, presented themselves either to the Tuen Mun Hospital or to the Princess Margaret Hospital in Hong Kong with symptoms of dysuria, frequency, urgency, urge incontinence and painful haematuria. Investigations revealed that their functional bladder capacities ranged only from 30 to 100 ml, and three of them also had vesicoureteric reflux. Cystitis glandularis was detected on bladder biopsy. In addition, eight of them had bilateral hydronephrosis on renal ultrasonography, while four patients had deranged serum creatinine ranging from 177 - 400 umol/L. All 10 patients had abnormal liver function with raised alkaline phosphatase and alanine aminotransferase without sonographic evidence of liver abnormality. One patient had augmentation enterocystoplasty performed to relieve the effect of intolerable urinary frequency resulting from diminished bladder capacity. However, he was then admitted 3 months later in acute renal failure (creatinine 1200 umol/L) requiring bilateral nephrostomy drainage, and was shown to have bilateral upper ureteric stricture. In view of raised inflammatory markers in this patient (raised erythrocyte sedimentation rate), six weeks’ course of oral steroid was prescribed for him. Subsequent antegrade nephrostogram revealed that his right sided ureteric stricture had resolved. Nevertheless, his left sided ureteric stricture remained the same and simultaneous antegrade and retrograde pyelogram demonstrated that it was a short segment ureteric stricture. Thus anastomotic ureteroplasty was performed. However his serum creatinine remained deranged at 250 umol/L. We observed that this new clinical entity of ketamine abuse and intractable urinary symptoms severely impair the quality of life in these abusers. Most importantly, the finding of hydronephrosis in most, and renal impairment in half, of our patients is suggestive of a progressive disease process that might end up with chronic renal failure. Possible pathophysiology includes the direct toxic effect of ketamine and its metabolites on the lower urinary tract. We wish to alert frontline doctors to this new form of uropathy. Early urology referral for comprehensive investigation and management would help combat this new form of urinary tract disease.